

BAIR DAM

Fact Sheet

PROJECT DESCRIPTION

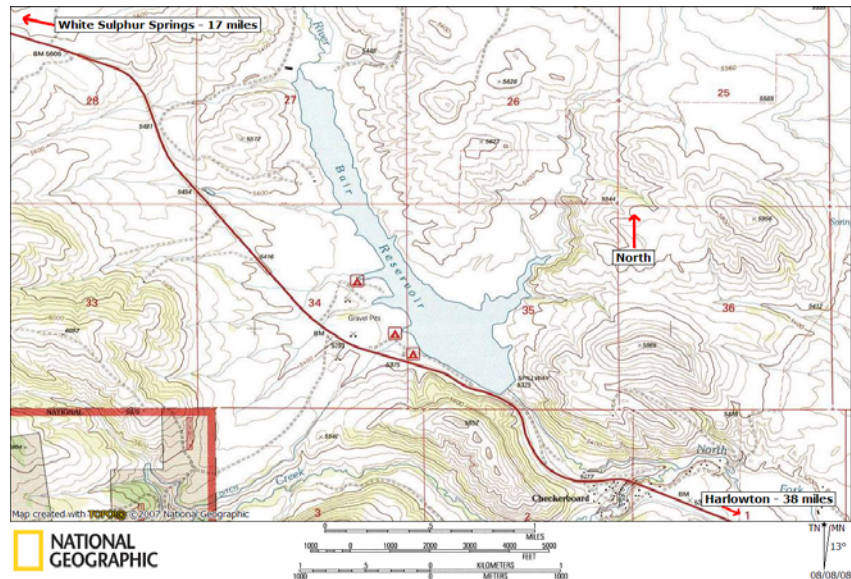
- ◆ Located on the North Fork of the Musselshell River in Meagher County
- ◆ Approximately ¾ mile upstream of Checkerboard
- ◆ Owned by DNRC & managed by SWPB
- ◆ Operated by Upper Musselshell WUA since 1940
- ◆ Project consists of:
 - ◆ Dam, 102' high
 - ◆ Concrete chute spillway
 - ◆ Gated, reinforced concrete outlet conduit
 - ◆ 48-inch butterfly operating gate and 48-inch emergency slide gate with manual operators in a gate house on the dam crest.
- ◆ Original construction completed in 1939
- ◆ Normal storage at full pool is 7,300 acre-feet
- ◆ 11 water users have 21 contracts
 - ◆ Project irrigates approximately 4,100 acres with three canals:
Northfork Diversion Canal (11.7 miles long), Checkerboard Canal (2.9 miles long)
Two Dot Canal (32.2 miles long)
- ◆ The dam is a “high hazard” structure which means that its failure could cause loss of life, 94 people would potentially be impacted
- ◆ Checkerboard, numerous houses, roads, bridges, and utilities are located in the flood plain

REHABILITATION

The Bair Dam was rehabilitated in 2003. The dam now meets all current safety standards, with an expected design life of 50 to 75 years. The rehabilitation consisted of the following:

- ◆ A new structural concrete spillway was constructed in same location as the old one
- ◆ The steep slope above spillway was excavated to gentler slope to alleviate creep and rock fall
- ◆ A new concrete conduit outlet structure was installed.
- ◆ Add additional toe berm to buttress downstream embankment was constructed.
- ◆ New control house, fence, security gates and access road was constructed

REHABILITATION COST: \$2,738,562



PROJECT PHOTOGRAPHS



New Spillway



New Outlet Structure



Bair Dam and Reservoir